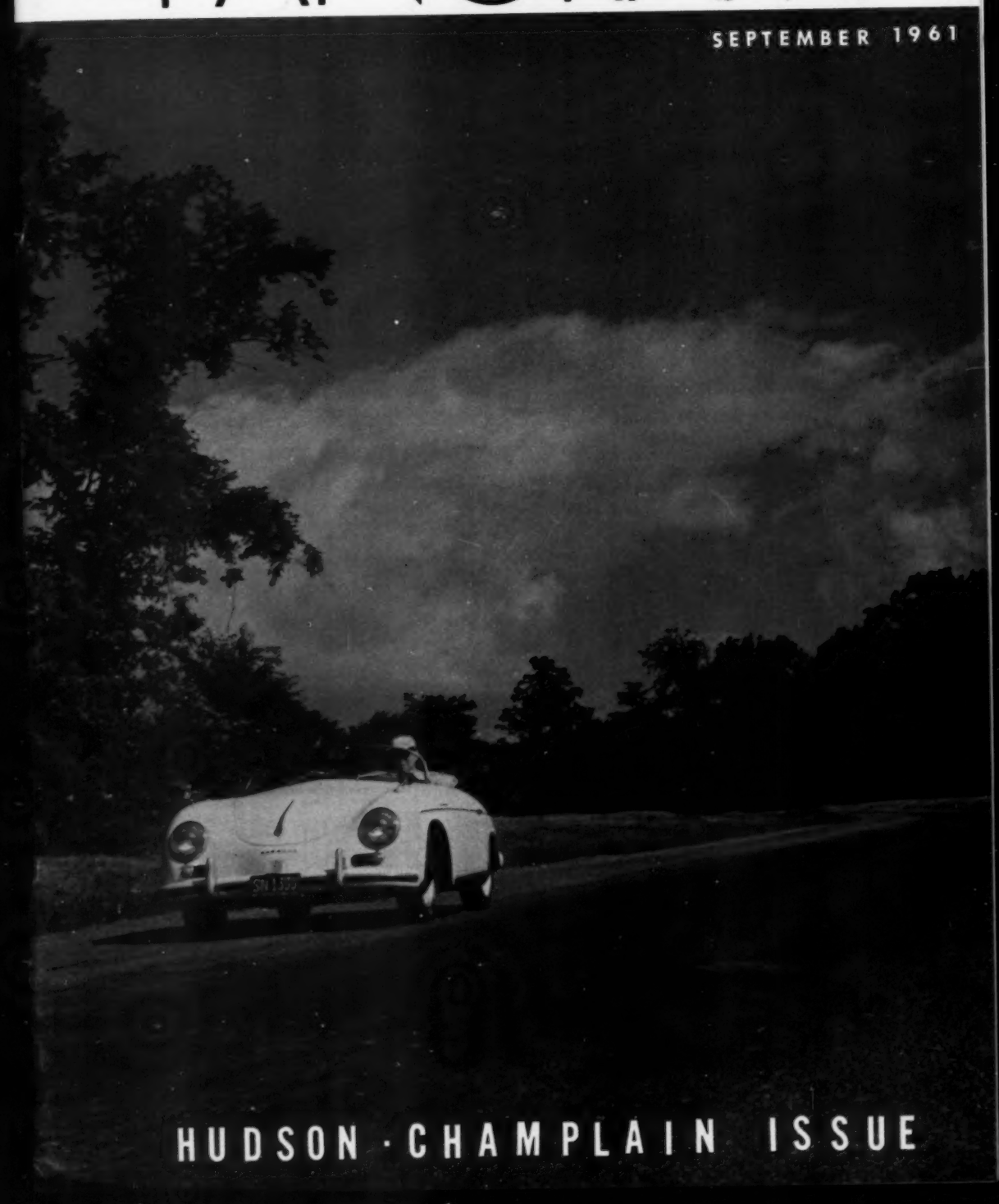
VOLUME VI NO. 9

PORSCHE PANORAMA

SEPTEMBER 1961



HUDSON · CHAMPLAIN ISSUE

PORSCHE PANORAMA

OFFICIAL PUBLICATION PORSCHE CLUB OF AMERICA

T. KENDALL TWIGG.....EDITOR

VOLUME VI · NUMBER 9 · SEPTEMBER 1961

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THE EDITOR SPEAKS

A salute and word of thanks are in order to the HUDSON-CHAMPLAIN REGION for their efforts on behalf of Panorama this month. This splendid effort directed by ART FREREREICK ably assisted by Regional President PAUL HEINMILLER is to be commended. The members of this region responded exceedingly well to a request for copy and produced a flow of fine material. We have selected what we think will make a balanced issue and will from time to time throughout the coming months present additional items.

Not since the 'Improvement Contest' early this year have we attempted to get from the readers their opinion on what they want in Panorama. We have deleted several features, presented new columns and revised methods of collecting copy all in an effort to increase the quality of your magazine. We are interested in your opinion and invite you to write the editor. Your comments will receive the most careful consideration.

COVER PHOTO

A Super Speedster beats upwind on a winding blacktop . . . roads and scenery typical of the Hudson-Champlain Region, PCA.—Photo by Carl Perko, Secty.

WISH WE WERE WITH YOU!

More than 30 Porsche cars with happy PCAers aboard will be caravaning shortly from Eagle Pass to view the wonders of Mexico in a two weeks' tour.

Many thanks go to Melanie Heims and Earl Kirschbaum who have been working overtime to set up this 1st Viaje de Mexico. Reservations have been made, fiestas arranged, the dignitaries of Mexico are waiting, Sports Car Clubs and fans are ready to greet the PCA caravan. (We wish we were going!) Our thanks, too, to Isabel Dorantes, a native of Cuernavaca who expresses such a warm welcome in the letter reproduced (in part) below.

Bienvenidos Amigos!

And I do mean a most hearty WELCOME to Mexico to the first PCA Viajes de Mexico Porsche group.

To those of you coming to my country for the first time, remember that in crossing a border you enter a very old country in a new continent. A country of great beauty, historical interest and deep contrasts.

You will find a way of living that may be different to yours, but full of charm and unexpected surprises. The main fascination that Mexico exerts upon the minds and hearts of foreigners visiting us, is rooted in its customs, its folklore and its traditional courtesy and hospitality. Some of our picturesque customs are slowly disappearing to make way for a modern fast pace of living similar to your own, especially in the larger cities, but you will still find them intact in provincial life.

Mexicans are a very responsive people and a pleasant smile goes a long way. Don't be afraid to practice your Spanish even though you may know only a few words. None will laugh at you, for we are proud and happy when people try to speak our language. . . .

. . . From your schedule, I see you will visit Cuernavaca where Mrs. Melanie Heims and her family are so well loved and have so many friends. I hope to meet all of you personally here and will be glad to answer any questions you may want to ask a Mexican to the best of my ability.

The Good Neighbor policy that is forever in the air can be a reality if we know each other better. I do hope that after your too short stay in my country you will want to return to Mexico because your trip will have been a pleasant and happy experience.

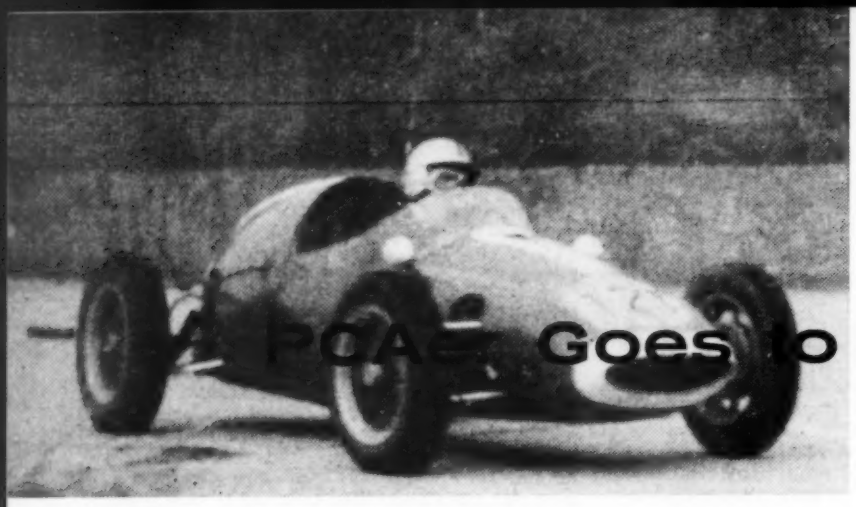
Isabel Dorantes
(Mrs. William F. Burgess)

PCA TREFFEN 1962

Thanks for your response to the Poll on the 1962 Treffen. We will publish the complete results of the Poll and finalized details in the October issue of Panorama.
As of now, we seem to have enough PCAers wanting to get aboard to fill the entire aircraft. Preliminary plans look like this:
We'll charter a Boeing 707 Jet.
We'll depart from Idlewood, N. Y.
Trip will be 4 weeks.
Leave about April 15.
Return about May 13.
Cost per person, roundtrip $275.

The beautiful new 1962 Porsches are described elsewhere in this issue, and you will have your very own (to order) waiting for you on arrival Stuttgart.

Your Entry Form for the Treffen will come to you with the October issue of Panorama along with complete details. Watch for it!



PCA Goes to English D

As I sat at home pouring over travel leaflets in preparation for my student tour to Europe, strange, glamorous names rang in my head: Versailles? Fleet Street? Via Veneto? No, the names were Targa Florio, Stuttgart, Zandvoort, Le Mans, Goodwood, and other Meccas for the automotive pilgrim. But you just don't adjust the schedules of a solemn organization like a tour agency to suit the vagaries of a sports car buff. I couldn't get within 500 miles of any Grand Prix, but I was permitted a few days to myself in England. While the other students wrote letters requesting admission to the Bodleian Library and the Tower of London and audiences with the Queen, I pecked out a letter to a Mr. Geoffrey Clarke of Motor Racing Stables Ltd. Mr. Clarke runs a school for budding race drivers, and, after all, this was an educational tour.

Mr. Clarke's prompt, warm reply assured me that I would, indeed, receive a handling trial and schooling at Motor Racing Stable's own course, and he requested that I contact him on my arrival in London.

The tour flew on past. While I was eager to drive, the panorama of Europe and the pleasant round of tour activities left me little time to think of motor racing. But the day finally arrived. I was by myself, in London, and bearing Mr. Clarke's phone number. I felt a little like Stirling Moss already.

The next morning, Mr. Clarke came roaring up to the door of the Grosvener Hotel in Stirling Moss' own Triumph Herald. I began to feel like a little boy whose birthday was on the Fourth of July and who was delighted that all this fuss should be made for him. On the sixty mile drive from London to Buckingham, Mr. Clarke explained the purposes of the school to me and a young Swedish trainee. He said that the school caters mainly to trainees with no experience, but that fact would not disqualify experienced drivers from further training. He noted that the primary objective of the school is to discover drivers who have latent ability which is capable of further development. Secondary aims are to provide pre-race training and, at the same time, improve the technique of trainees. He went on to add that the cost of a complete course is approximately 75 pounds sterling, or $210. As he talked, he put the Moss Herald, a mediocre performer at best, through a terrifying series of paces. There are no speed limits in England, and Mr. Clarke apparently drove on the assumption that it is a sign of weakness to apply the brakes.

On arrival, we were ushered into the clubhouse, where one sight struck me immediately. There, on a huge table in the center of the room, was a mountain of fried, bent, and fractured parts. Mr. Clarke informed us that these were the souvenirs of various student soirees during the handling trials. Then we got down to business.

"Bob, what do you expect from this school and from racing?"

"Simple. I want to race. Always have wanted to. I want to go all the way if I can, and that's why I'm here." He made some cryptic jottings in a notebook, handed me a log book which I would use throughout the school, and motioned me to another table to select a crash hat and goggles.

Then on to the circuit. I shoehorned myself into an ill-used Lotus XI that was having some wrinkles hammered out of it, and waited. It seems that a few moments before, some tyro had gone off course so far that they needed radar to find him, and the car had come off second best. You run the handling trial tailing another car, this time a Cooper Formula Junior driven by Tony Marsh, a crack English professional. Marsh was extremely pleasant, helpful, and businesslike. "Stay a few hundred feet back and don't lose it or you're out on your ear. I'll raise my hand to tell you where I shift. Follow my line and stay out of the weeds." Then I got a little restless. The Lotus didn't fit my six-foot plus frame, so the rear of the seat was removed. My new Super 90 has the conventional right hand shift; the Lotus was left hand. The Lotus was set up to cut out at 5,000 to keep the jiggly bits together; I was

Driving School

accustomed to standing on the Porsche until the valves told me that they were perilously close to the piston crowns. But throughout the wait I felt that this is what I've always wanted to do.

At last, Tony Marsh told me to fire up the Lotus and get ready. Suddenly I remembered. "Tony, there aren't any seat belts." His reply was something about silly Yanks and their silly belts. "Well, Bob," I thought, "Here you go, belts or no." And we went. Seventy miles an hour doesn't seem like much on a six-lane super highway, but that same speed on a roadway that was all of two F. Jr. cars wide, twisting through a maze of me-manglers like trees, ditches, and roakc, is plenty. We roared off down a short straight, through a sharp left-hander, and onto the ¾ mile straight on the old airstrip. This terminated in a sweeping third cog left-hander with a decreasing radius, then the road broke right. You catch top for an instant, then down into second on the narrow pavement for a tight left-hander. A slight uphill straight followed for about a third of a mile, then you crest a rise into a fast right-hand kink and a sharp left at the clubhouse. Tony Marsh had warned me to be careful about this turn. One slip here and you would be among the bourbon bottles in the clubhouse's sports car bar.

This was as furry a piece of landscaping as I ever hope to see across the hood of anything hotter than a Volkswagen, but by the time lap two went snarling on by, I felt in control. I roared down the straight for lap three, swept through the left-hander and the right-hander, getting a face full of dirt from Marsh's Cooper as he nipped the verge at the apex, and into the tight left-hander. I grabbed for second and missed. The Lotus swung around slowly —oh, so slowly—and I wound the wheel attempting to catch it. I went out farther and farther and then, bang, it was crosswise and going backward while I sat there with my ears growing long and furry. I'd lost it and then some. I restarted with a lump in my throat, thinking that the guy who wanted to make a career out of this had washed out on the first flight. Marsh, meanwhile, had pulled up and waved me on laughing. That made me feel a little better. When we pulled in after the five laps were over, Tony was out of his Cooper like a shot and already had the ubiquitous notebook out. The questions came thick and fast. First, of course, was the spin. I acknowledged it—what else could I do—and said that I was unfamiliar with the left hand shift lever. He muttered something about Yankees and went on.

"How many revs coming out of the slow left hander in the woods?"

"About five thousand or so," I answered glibly. Mr. Marsh's response was a gurgle and a succinct commentary on his own lineage. It was then that I learned that I shouldn't have downshifted or upshifted during the handling trial. Nobody told me not to, at any rate. More questions followed, and I had the correct answers for these. If only college was that easy. Then Marsh waved his hand toward the Lotus and said, "Well, Yank, don't just stand there. Let's give it a bash, shall we?" At least I'd passed the first part.

The first time I had approached the Lotus, I had trembled. This time it was the car's turn. Marsh took off, and I was hot on his heels. As we dove into the left-hander leading onto the straight, his hand rose. I flicked the stubby lever into third. Before I had finished the shift, his hand rose again. Into second. Stand on it to five thou, and snap it into third. I knew the car now; it was a tired old warrior, but the gearbox snicked into place like a gremlin's egg, the clutch bit cleanly, the brake took hold NOW, and the cockpit was becoming comfortable.

The fifteen laps lasted seconds, it seemed, and Marsh signalled me in. More questions, and a brief discussion of my line, or lack of it, on several corners, and I was ushered into Mr. Clarke's office in the clubhouse. The news was good. He invited me to come back, preferably at such a time as I could practice for two days. He also jumped me a classification and told me that I could not only take a Cooper Junior next time, but that I could dispense with an instructor on the

track.

Needless to say, my educational tour was slightly revised to include a second date with Motor Racing Stables, Ltd. As I've said, school is school.

Things progressed beautifully on the second trip. The Cooper made the beloved old Lotus feel like a truck. It's difficult to describe the handling qualities of a good Formula Junior with other than superlatives. The car sticks like glue, has gobs of go all through the range, has flawless brakes, and is about as secure-feeling as any car I've ever driven. You don't turn a Cooper F. Jr.—you wish it around a corner, and it forgives all but the most flagrant ham-handedness.

As I whistled down the straight in the Cooper, thoughts rummaged through my head. It's a long way from FoCastle Farms at Burnt Hills to an airstrip course outside of Buckingham, England, but I began thinking about racing back home. What to get? The Super 90's too new and pretty to race. Oops, downshift for the left-hander, Bob. An RSK! That's it! Sure, where will you get the money to . . . watch it, your line's sloppy on this bend. No matter. I can get a . . . DOWNSHIFT. Oh, well, it's too late. The Cooper is crossways, there are no trees around, and a spin, even at ninety miles per hour, is very slow to the guy in the cockpit. I watched idly as the rear of the Cooper swung out around me, then got crosswise again and plowed to a halt. That ended the wool-gathering. You don't daydream and drive a race car. Sure, you can, but make sure your insurance is paid up. The next laps were uneventful—if you call with a wheel at each corner uneventful.

I finally pulled into the clubhouse. School was over for a long recess. Mr. Clarke and I talked at length about my driving, which pleased him more than it did me, and he offered me a recommendation for a Canadian racing license. I'm not yet old enough for SCCA, so my campaigning will be limited to Canada for a while. And, believe me, I'll think about what to race when I'm at home in an easy chair, not on the course. When I'm there, I'll have my hands full trying to emulate the clean, sure, arrow-swift line of Tony Marsh, and it'll be many years before I forget the lessons in driving and in comradeship taught me by Motor Racing Stables, Ltd.

Robert Bailey
Hudson-Champlain Region
as told to Harry Roberts

COMPACTS

"I have been shopping for a new small compact car. The man in the salesroom said he had a full range of small compacts—tiny, small compacts, regular compacts, large compacts and very large small compacts.

"He began by showing me a very large small compact and said that it was even larger than the average model of the big low-price cars. In fact, it was almost as large as the big medium-price cars. He predicted that, the trend toward smaller cars among the big cars being what it was, and the trend toward bigger cars among the small cars being what it was, I would be wise to buy the very large small compact if I wanted to have a good sized car I could be proud of.

"When I asked him why it wouldn't be a good idea for me to be out shopping for a regular big car, he said the regular big cars were all right but they were difficult to park and used much more gas than the small compacts. Then I asked him whether I wouldn't have trouble parking the very large small compacts and he said that if parking were a major factor, he could show me a regular small compact or a tiny small compact.

"We looked at the regular small compacts and the tiny small compacts. The salesman reassured me by saying that they were larger than the comparable models of other makes. He proceeded to demonstrate, in fact, through actual measurements, that his small compacts were not as small as those of the competition. They were as small as I wanted them to be but also as large as I wanted them to be. I have long legs. It was a little difficult getting into the tiny small compact. The salesman suggested that I take another look at the very large compact. I would have no trouble getting in and out. In fact, he said, it was even larger . . ."

From Los Angeles "Porscherama"

FOR SALE

Mauro Wheel, mahogany rim, aluminum spokes. Almost identical to the Nardi. Fits all but 356B. Two weeks old. Cost $60—sell for $45. *Harry Smith. Phone: 609-AX 9-5308.*

1960 Normal Coupe. Black, never raced, always garaged. 8640 miles—like new. $2900. *H. R. Mayberry. 2031 West Main St., Danville, Virginia.*

New soft top and frame for Convertible "D". $85.00. *Perk Sklarow. 25 W. Harvey St., Philadelphia 44, Pa.*

1961 Super Coupe. Signal Red with grey interior. 5000 miles. *Robert Willmore. 702 Center Street, Crown Point, Indiana.*

NEW PRODUCTION AND SALES RECORDS

Stuttgart: While automobile firms around the globe report a cut-down in the production of automobiles, Porsche reached for the first time a record in the production of cars during the month of June by producing 900 cars in June compared with 610 in 1960. Delivery time is, like in the past, four to five months.

Meet PORSCHE CAR PACIFIC!

With eight PCA regions located within its distributorship area, Porsche Car Pacific has become an increasingly active participant in the Porsche family since it acquired the Northern Pacific Coast area franchise in late 1959.

The history of Porsche Car Pacific is brief, but if the background of its principal affects its future, then PCP will grow to be one of the more active and colorful members of the Porsche organization. Reynold C. Johnson, President of the firm, has been active in the automotive field for more than 30 years, and when he talks of his beginning in the business, names like Velie, Overland Mystery, Wenton Six, and Stoddard Dayton pop into the conversation. Since that time, Mr. Johnson has held various franchises, but none has caused him as much pride as the dealer organization that has been set up with Porsche Car Pacific dealers.

At the time PCP took over distribution of Porsche there were eight dealers in Northern California and only a few sparsely scattered over the remaining area of Washington, Oregon, Montana, Utah, Idaho, and Nevada. Currently there are 55 dealers ranging from 17 dealers in the San Francisco Bay Area to Glacier Motors in Kalispell, Montana.

To service this vast area and the large number of dealers requires large and efficient service and parts organization. Porsche Car Pacific maintains its headquarters in San Francisco where cars are taken from ships with such names as Jarita, Jakara, Madame Butterfly, and Bonanza. The latter name is somewhat appropriate for the Western distributor of Porsche, and it's literally a bonanza when a ship arrives in the Golden Gate city with enough units on board to satisfy the enthusiasts who have been waiting for their car to finally arrive.

Fortunately there is no waiting for replacement parts or accessories at PCP. The company maintains a parts inventory estimated at more than $250,000 in the huge parts depot in Burlingame, California.

Specialists from Porsche of America and PCP are continually in the field working with individual dealers in maintaining the two companies' standard of sales and service. Familiar to many Panorama subscribers is Juergen Kirberg who worked on the factory pit crew at Sebring in 1961. Juergen, although headquartered with his wife Karen and young son Ralph in San Francisco, is seldom seen at PCP for he spends roughly 80% of his time working with dealers and service managers throughout the area

Walter Spielberger is the distributor's regional service manager and works closely with Juergen in conducting an almost continual series of training schools for Porsche mechanics. Walter has worked with Ferry Porsche at the factory in Stuttgart and has written the book, "Porsche—The First Decade".

PCP and its dealers are also active in PCA region affairs. Recently the Fresno region held a Porsche Weekend near Hanford. On the schedule were technical sessions, an autocross and driver training session, all held at the Marchbank track, a two plus mile track with Monza turns and 180's—ideal for Porsches. On hand were PCP specialists Kirberg and Spielberger to conduct the technical session; mechanics from the dealers in Fresno and Visalia conducted the tech inspection. Emil Pardee and Don Wester, two PCP dealers who undoubtedly are more familiar as Super 90 and Carrera drivers at Laguna Seca and other west coast races, conducted the driver training session. Emil and Don led groups of six to eight "hero drivers" around the track increasing speed with each lap until all had had the actual feel of a racing lap. Although not racing as a team, Don and Emil have racked up an impressive record for Porsches during the racing 1961 season in California. Emil is racing a Super 90 Coupe, which, incidentally, he drove from California to Washington and British Columbia on his vacation, changed carburetor jets and plugs, adjusted tappets, and took first in class at races in Seattle in August. Don is now driving the Carrera that Emil drove in Nuremburg in 1959.

What has become almost an annual event now is the party hosted by PCP Modesto, California dealer, Deet Eichel of the Yosemite Region. Deet recently hosted more than 125 Porsche enthusiasts at an evening buffet dinner on his patio as part of the Paso de Las Sierra Rally, a weekend event crossing California's Sierra Nevada.

The car itself has engendered a camaraderie among all those at PCP, and while the invitation may be a bit premature, PCP extends an invitation to the VII Parade to be held in PCP home territory, the colorful Monterey Peninsula of California during the latter part of June, 1962.

WHAT EVERY REGION SHOULD KNOW ABOUT PUBLICITY

Publicity about your PCA Region in local and area newspapers, radio and TV is important to:

1. Remind and alert PCA members about forthcoming meetings and events (particularly if you don't have a Regional newsletter).

2. Stimulate membership by indicating to non-member Porsche owners that the Region is active, and that perhaps PCA *does* have something to offer them.

3. Show officers of other sports car clubs

that PCA is an outstanding organization, and thus challenge them to meet our mature attitudes and standards, and thus help improve the overall image of sports car enthusiasts in the public's mind.

Because news of PCA appeals to a limited segment of the public, items about the Region usually will appear in a sports car column, in the sports section, or in a "meetings" column.

What items are news media interested in? They include announcements of coming meetings and events, election of officers, results of events, national events (such as the Parade) if held in your area, special awards and achievements of members, annual reports, statements from Regional officers concerning civic proposals that touch upon sports car owners and their responsibilities as good citizens.

If there are local sports car columnists, call them up, and find out where they want news items sent, and what their deadlines are. Do the same if you have a sports car program on a local radio or TV station.

If your Region covers a large part of one state plus sections of adjoining states, you have a problem in reaching Porsche owners in the smaller communities. First, concentrate on the large metropolitan dailies. Then refer to your public library's copy of the N. W. Ayer directory of newspapers and select the main dailies in the cities in your Region. Meeting notices sent to these far-flung dailies may be of marginal value to the editors because they are reluctant to give space to a meeting in a city 50 miles away. You may want to survey these editors in advance to be sure they are interested in receiving your news releases before you send any.

PREPARING YOUR NEWS RELEASE

A typical news release for announcing a monthly PCA meeting is reproduced on page Note these features that are common to all good news releases:

1. Name of organization in upper left hand corner, along with complete name, address, and phone number of person to contact if the editor wants further information.

2. Release date, or IMMEDIATE RELEASE, in upper right hand corner.

3. Body of release begins one-third to one-half way down the first page. The space is necessary to allow the editor to write instructions to the composing room.

4. Simple, straightforward title for quick story identification. The editor probably won't use your title, but it will quickly tell him what the story's about.

Here are some guides to help you prepare professional stories and news releases:

1. Give the key facts in the first few sentences, particularly in straight news stories.

2. Stick to essentials. Omit unnecessary details. Skip opinions, unless you are quoting a source. Don't editorialize.

3. Use plain language, short sentences, and short paragraphs. Avoid long words—and shun sports car jargon like the plague.

4. If you quote someone, quote him accurately.

5. Be sure of all details—check them. Dates, places, names, titles, statistics, must be accurate. Always give initials and last name, or first name and last name, never just the last name alone.

6. Beware of colorful and cute writing. It may be hilarious in high school newspapers, but shows immaturity in adults.

7. Meet your deadlines.

8. Use 8½ x 11 inch white bond paper, one side only.

9. Type it neatly, double space, liberal margins on all sides. Number pages if the story is longer than one page. Identify each page of the story with "Porsche Club" or some similar identification.

10. Keep a carbon for your file. If your news story is going to only two or three local newspapers, send the original to one paper, and clean and dark carbons to the other two papers.

(Incidentally, you can use these same hints and guides when preparing articles to submit to PANORAMA.)

TOOLS OF THE TRADE

Regional Publicity Directors will find these tools of value:

1. Telephone—with a supply of paper and pencils handy.

2. Directory of Regional officers and members.

3. Calendar of meetings and events.

4. File folder for clippings, carbon copies of releases, background information, etc.

5. Typewriter, 8½ x 11 inch white bond paper, carbon paper, envelopes, stamps.

6. Card file of sports car columnists, editors, etc. Each card should give complete address, deadline, etc.

7. A duplicating machine, or access to one.

RADIO AND TV

What about radio and TV? With more and more local radio stations on a straight news-music diet, your announcement about a meeting has a good chance of being mentioned on

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Q & A COLUMN

Question

I have a '59 1600 Normal which has been used primarily for pleasure driving and secondarily for utility use in town.

Here is the problem. At 16,000 miles following a 2,000 mile trip at moderate driving speeds (60-70 mph) I noticed that the car developed a rather pronounced tranmission "growl" that was quite audible whenever the clutch pedal was out. It was particularly evident in neutral but disappeared when the clutch pedal was depressed. From reading in Panorama I deduced that it was not due to the clutch throw-out bearing because the opposite presumably occurs in that case, i.e., noise and roughness is present when the clutch pedal is depressed.

I was subsequently informed at a Porsche agency that the growl was probably due to faulty transmission-shaft roller bearings and that this was "typical" and nothing to be concerned about. As added reassurance a 1961 Normal Coupe was demonstrated to me; it had as much or more noise than my own. By the way, I failed to mention that the Coupe had but 7,000 miles. The mechanic also informed me that in one case, replacement of the roller bearings resulted in only temporary improvement and that, therefore, repair was not advisable.

Such information would probably satisfy most people but I have difficulty reconciling how such a condition could be considered "normal" since it is not in keeping with the other high quality features of the car.

Hence, what I wish to know is whether this condition is typical in the experience of others and something that one learns to live with or should steps be taken toward its repair?

Incidentally, I have been very pleased with the Porsche with the exception of clutch replacement at 3,000 miles and shock absorber replacement (by Koni) at 8,000 and 12,000 miles, the rear and front, respectively.

Paul J. Jensen
717 East Washington St.
Iowa City, Iowa

Answer

This gentleman was informed correctly (we hope)—many transmissions will make some noise in neutral.

The bearings used by Porsche are good but after 30,000 miles (or less they may develop some noise and wear. First off, transmission oil should be changed at 300, 1500, 6,000, 12,000, 18,000, 24,000, etc. every 6,000 miles after break-in. This is primarily to clean the magnetic drainplug and flush out any other metallic particles in the transmission.

We don't know how bad this noise is but live with it until it becomes much worse or something breaks. The bearings shouldn't be very noisy yet and as we said, all transmissions make some noise in neutral. If it is noisy on the highway and the noise increases with speed, then it is getting bad.

Question

I must be known as a guy with "hot" feet because I like to have lots of air blowing around them. With my '61, I don't get it.

Has anyone been successful in getting some sort of a ventilator to blow air around the feet? I sure would be interested in any suggestions or plans along these lines that you might have. This is my third Porsche and I am a firm booster. I agree with the group that Porsches need more ventilation, better windshield wiper motors with rheostats, better speedo cables and better clutches.

Jack H. Taubensee
9363 W. King St.
Franklin Park, Ill.

Answer

Hot Feet—The easiest thing that comes to mind is to go to an automobile supply store and get one of those old 6 volt fans they used to use to defrost windshield pre-war. They are quite small and were available with plastic blades. It should be no problem to wire it up with a switch and mount it under the dash. You could even hook it into the ignition switch so it would work right off when you start the car.

Other than this, time and money can do anything. Vents could be installed but it just does not seem practical to us.

DO YOU HAVE A PORSCHE PROBLEM

We need more questions to keep our panel of experts busy. Take advantage of this free service to solve your technical problems. Send your query to:

Technical Editor
Porsche Panorama
P.O. Box 3025
Alexandria, Virginia

PORSCHE COMPRESSION RATIOS AND SCCA

Since the advent of performance classes in SCCA racing and the return of the push-rod type Porsches to racing, there has been created a great deal of interest and confusion over legal compression ratio limits for Porsches racing in SCCA competition.

The Porsche of America Corporation has supplied SCCA with the following compression ratio listings for the various models:

1300N	6.5:1	to	7.5:1
1300S	8.2:1	to	9.2:1
1500N	7:1	to	8:1
1500S	8.2:1	to	8.7:1
1600N	7.5:1	to	8.5:1
1600S	8.5:1	to	9:1
1600 S90	9:1	to	9:5:1

The reason for the variations is to allow for compression increases within the stated limits due to normal carbon deposit build up. Their intention was not to provide an out for cutting down cylinder barrels or for the installation of Super pistons into Normal engines.

Some of the tricks pulled to raise compression ratios during a long period in which SCCA did nothing to clarify things were:

1. Cutting down of the bottom of cylinder barrels.

2. The cute trick of cutting away some of the mating surface of the crankcase upon which the cylinder barrels fit. This gives the same effect as the cutting down of the cylinder barrels but baffles the protest inspectors.

3. The installation of Super pistons in Normal engines and the insertion of additional copper gaskets under the barrels to bring down the compression ratio within the upper limit Porsche had submitted.

Finally, the SCCA Contest Board issued the following statement which leaves nothing to doubt:

"Production Category. Recent protests have brought out an apparent common misunderstanding of SCCA Production Category rules. The Club has published a booklet of 1961 Production Car Specifications to assist members preparing cars in this category, and to provide guidance for officials enforcing rules at events. This booklet is compiled each year on the basis of information solicited from manufacturers of each recognized sports car. Due possibly to their unfamilarity with SCCA rules, some manufacturers tend to list their cars' specifications as they would be prepared under Appendix J of the International Sporting Code of the F.I.A. In any case, the data received by the SCCA is accepted in good faith and set down in the specification list for the general information of its members."

"All cars competing in the Production Category must be prepared in accordance with the SCCA Competition Regulations. In resolving protests, Section IV of these Regulations will be given precedence over the Production Car Specification booklet."

"If, for example, a listed compression ratio for a particular car is not attainable through allowable tuning procedures authorized in Section IV, Rule 2, or by use of approved optional equipment listed by the Club for that make and model, then the car must be raced with the same compression ratio as provided when the car was delivered."

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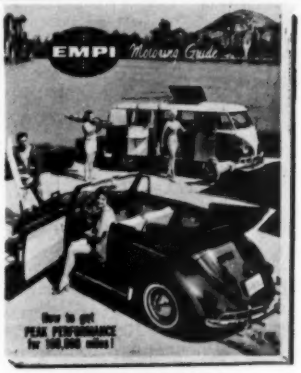

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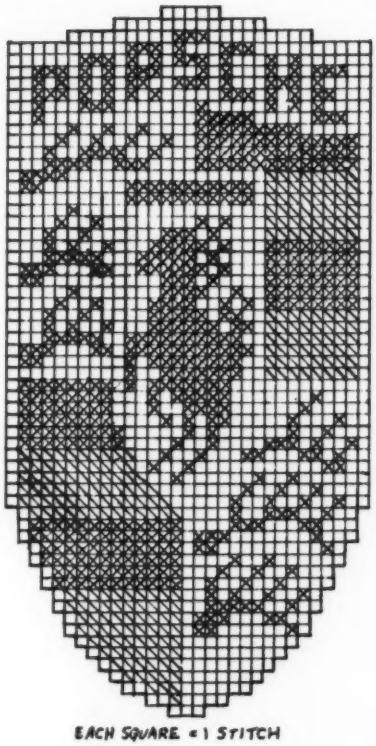
BOX 668 RIVERSIDE, CALIFORNIA

FROM THE PASSENGER SEAT

A couple of years ago my husband promised to send to Ted Ohland, then President of the Metropolitan New York Region, a pattern of the sweater that I knitted for him mit Porsche emblem. I am now fulfilling this promise for him.

The most difficult feature of this whole project, aside from beginning it in the first place, is making the pattern for the emblem. Because most stitch gauges are oblong, rather than square, it is necessary to draw the pattern as though it had been in the middle of a chain accident on the Jersey Turnpike. The particular gauge that I used was five stitches per inch, eight rows per inch. You'll find it easiest to knit your sweater if you find a knitting book that contains instructions for a sweater using this gauge. However, if you feel ambitious, here is the procedure for making a pattern to fit another gauge.

Using the ⅝ gauge as a basis for my attempt, the actual dimensions of the escutcheon must be altered in such a way that one square on the graph will represent one oblong stitch. Starting from the center point of the design, measure outward both



design is four inches and its width is three inches, the dimensions to be plotted on the graph paper will be 32 stitches for height and 15 for width. The points as plotted will not show the actual dimensions of the finished design, but things will right themselves in the knitting.

Finish the design by measuring and plotting all the points that you can, especially the locations of the horse and the vegetation. The rest can then be drawn freehand working from the known points. If you're in doubt, look at the design from an angle to give yourself an idea of the correct proportions. One word of warning: When drawing the design, start by using the lines as they are normally drawn, without regard to the stitches. Then, when the contours satisfy your critical eye, fit the design into the stitch limitations.

The rest is no harder than knitting an argyle sock, so go on and knit.

Jane Frederick
Hudson-Champlain

PCA PERSONALITY

ART FREDERICK

Much of the success of the Hudson-Champlain Region is due to the untiring energies of Art Frederick—one of the two founders of the Region, first President, Editor of the "Air-Cooled Advertiser," monthly newsletter, for 3 years, and chief upholder of the marque in area gymkhanas.

Art's first sports car was an MGA; he now has a 1958 1600S Speedster, one of the first Supers with plain bearings in the country.

He received his BA from Cornell in 1956 and spent 2 years with the U.S. Army assigned to the Quartermaster Depot, Philadelphia. He married his wife Jane in 1958; they have two children. On the many acres of farmland of the Frederick home in Chatham Center, N.Y., is an autocross, the only one owned by a private individual in the area.

Art joined PCA's Central New York Region in 1958 and saw his efforts to get the Hudson-Champlain region chartered in July, 1959.

Besides being in business with his father in the Chatham Furniture Co., he is a member of the Exchange Club, and Editor of "Knock-Off," the SCCA's regional publication.

CORRECTION PLEASE

We regret that a mistake may have been made in quoting our price for the new book "PORSCHE, the Man and His Cars."

The correct price to all PCAers is $6.00. (Retail price is $7.50). It's still a fabulous book and reserves a place on every PCAer's bookshelf. Write to Executive Office for your

drifted from Page 8

a station's "Community Bulletin Board," or by a local sportscaster.

For information-in-depth on publicity and preparation of news releases, consult the library at your public library for books and pamphlets on the subject.

In summary—Publicity Directors have a big part in their Region's public relations program because it is their special job to tell the PCA story—accurately and continuously.

Paul R. Heinmiller
Hudson-Champlain

More luggage space and note filler cap and new air intake.

Take your pick . . . I choose the model in the center please!

The Old

NE

The Old and the New (cars, that is).

As in the past, Porsche is maintaining their policy of no changes for the sake of "style." The new 1962 models show several visible changes but all have been made as technical improvements. To us they seem to make sense . . . and we list them below:

1. The front and rear windows on the Coupe have been enlarged. This gives us better front and rear vision . . . easier to see traffic lights, park and drive.

2. The ventilation and the fresh air system has been redesigned. Air now comes in through an air-intake grille in front of the windshield. This we like!

3. The dual air-intake grilles used successfully on engine deck lids on the Carrera have been adopted for all 1962 models. Besides providing better breathing for carbs, we like the way this looks. BUT, it's been hard enough to keep 1 grille clean . . . what are we going to do with 2 of them?

4. The gasoline filler cap has been removed from inside front deck and is positioned on the right front fender. The release knob is located inside under right side of instrument panel. We understand that the principal reason for this change is the new law passed in Germany which forbids the use of filler caps located internally.

This makes sense to us and will prevent future mashing of front deck hinges by clumsy gas station jockeys. The front deck has been made larger and is "squared off" across the front edge. Along with relocation of the filler cap, the gas tank has been flattened out so that there appears to be more luggage room in front compartment.

5. Finally and at long last, we get a new windshield wiper system providing *variable speeds* . . . and about time, too!

6. Standard equipment also provides; self-winding electric clock, shift-lever lock, glare-proof mirror.

7. The seats, still reclining and adjustable, now have a "lock" to prevent them from banging forward on sudden stops.

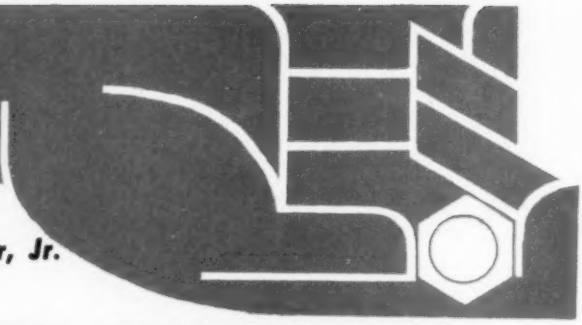
8. Finally, the Cabriolet top now has a zipper round the rear window.

The new Carrera 2 with 2-Liter engine (130 HP 'DIN' at 6200 RPM) is now ready. We don't have room here to give the specs on this latest bomb. And it has already been covered in Sports Car Graphic.

We have no information on changes or improvements to Engines or Running Gear. We can only suppose, that as usual, there will be many minor technical improvements. That's about all we can say till we see and drive the newy models. Prices are still unannounced.

NEW FOR 1962

TECHNICAL



EDITORS: Ted Smith
Charles Beidler, Jr.

RARE-EARTH OIL FILTRATION FOR THE PORSCHE

In any gathering of two or more Porsche owners, conversation will most likely turn to the technical aspects of the car itself. Certainly oil would tend to walk away with the honors for the most discussed single topic. Technical discussions have covered the gamut of whether HD oil is approved, to specific brands and weights, ad infinitum.

Surprisingly little, if any, information has ever appeared on the part of the lubrication system we generally take for granted . . . the oil filter itself.

The oil filter has received scant mention, that is, until one day, while reading OCee Ritch's new book, "Porsche Owners Handbook," I chanced across page 155. There in a fairly brief but tantalizing few paragraphs, I read about the fellow in California who had not changed his oil in 80,000 miles. In fact, so the story ment, he had transfered his old 80,000 mile oil into the new car he had just bought. The mention was brief, but exciting enough to deserve further investigation. A call to the local New York Brigg's field office elicited some information about the theory of lube oil reclamation, but not enough information regarding the system's adaptability to the Porsche was available.

A review of the Ritch book in an issue of Panorama mentioned the oil filter, but did not feel that it was practical because of size restrictions even though the idea sounded intriguing.

I determined to find out as much as I could and fortunately, a recent business trip to California enabled me to check up on the complete story and gather together all the necessary details. In several days I came up with enough new technical information and details of modifications to fill a couple of volumes. Through the kind assistance of Mr. OCee Ritch, I met and spent a half a day with the fellow mentioned in the book. That I was impressed, and still am, would be an understatement (more on this later).

I also talked to other users of the Briggs filter. I can say that it works and is in wide general use in California and not among Porsche alone. Happily, for about 99% of the Porsche fraternity, the installation is a few minute affair and is almost an exact replacement for the current unit. I don't expect everyone to rush out and install it because of the facts that are presented here. I am going to ask you to bear with me while I try to present the facts which I believe support the use of the Briggs. For some of us it will be a review, but here goes.

Functions of Lubrication

There are three primary functions of lubrication as used in internal combustion engines:

1. To lubricate moving parts, to substitute fluid friction for solid friction and to keep solid surfaces apart.
2. Oil plays an important part in cooling. As an example, Diesel engines remove heat through oil in a magnitude of about 50% as much as removed through the water cooling system. This might be an extreme example but compared to water cooled engine, the Porsche engine has pressures and temperatures that exceed standard water cooled engines.
3. Oil tends to seal moving pistons against gas blow-by.

Why Do We Change Our Oil?

Regular changing of our lubrication oil is recognized as one of the most important maintenance steps in the upkeep of any car. Depending on the type of road use we give our cars, this schedule might require an oil change at every 900-1000 miles if an extreme amount of stop and go city driving is indulged in. As well, cold winter climates and stop and go driving might require even more frequent changes. Optimum driving conditions such as long runs of better than 50 miles, where the engine temperature is good and hot would extend our oil mileage to 2000 miles and beyond before a change is required.

Lubricating oils do not wear out, they do not change their lubricating capabilities, nor do they change in essential composition. Oil, however, does become unsuited for further use because of contamination. Contamination interferes with the proper performance of oil. If oil could be cleansed of its contaminants it would be as effective as new oil, and in addition, have received the further benefits of stabilization.

Oil Contaminents

A. Metal Chips: Due to the various movements within the internal combustion engine, ideal lubrication would require actually four different lubricants for minimum engine wear. In reality, since one compromise oil is used, lubrication malfunction in spots does occur with metal-to-metal contact and resulting wear. The metallic chips and particles smaller than the regular oil filter removes continue to circulate until the oil is changed.

B. Unstable Petroleum Ends, Acids, Tars, Gums and Asphaltenes: In an engine, oil is subjected to extremes of heat and pressure. This method of heat and pressure are part of the original process used in refining or "cracking" the petroleum in the refinery. Since there are always trace elements in refined oil, subjecting the oil to heat and pressure within the engine produces these harmful products and they continue to circulate until the next oil change. These by-products are less stable as well and with partial oxidation of the oil tend to produce varnish. Unless varnish is removed, it tends to bake on the surfaces it coats, and builds up successive layers which produce sticking valves and other engine troubles.

C. Organic Acids, Combustion or Soot Carbon: The third function of the oil, sealing the pistons against blow-by is possibly the greatest source of lubricant contamination. With the compromise in lubricant properties, a small amount of blow-by is inevitable. Blow-by carries dirt and dust from the air and water that has condensed on cylinder walls. In the internal combustion engine, it is not possible to effect complete combustion of the fuel. The other blow-by products which result from this incomplete combustion, range from mild organic acids to solid soot carbon particles. These particles are responsible for turning engine oil opaque and black.

D. Water: In engines using gasoline which is known as a Hydro-carbon fuel, for every pound of water is formed as a byproduct of combustion. Some of this moisture is included in the blow-by. If the engine temperature is high enough, this water will not condense and mix with the oil, but will be blown out of the crankcase breather. If the operating conditions are such that condensation does occur, as in stop and go city driving, this is a very serious matter. Nothing promotes the accumulation of sludge faster than water mixed with the oil.

The Effects of Contaminents

Contamination of the oil in an internal combustion engine may be said to occur from two main sources:

1. Degradation of the lubricant itself by heat and/or pressure, and by oxidation.
2. By contamination from external sources.

The effects of these contaminants are obvious. Abrasive dust particles and metal chips will cause excessive wear of metal parts. The soot carbon and the coke carbon are also abrasive although to a lesser extent.

Organic acids are corrosive and the acids formed by the incomplete combustion of hydrocarbons are primarily so. These acids are formed by the combining of free sulphur in the oil and the condensed water in the oil and from sulphuric acid. The gums, lacquer and varnishes plate out on hot surfaces and result in sticky valves, stuck rings and other expensive noises. The varnish and resins also prevent the transfer of heat by insulating the metal walls, a prime reason that many of our older cars are prone to run hot.

The methods of partially counteracting the effects of the contaminants are primarily by paying attention to the necessity of a regular oil change and not depending on a set mileage schedule. In the colder areas and in particular, when the car has been used for short hops, the build up of water is a prime danger. It is more economical to get rid of the oil even if it has been in the crankcase less than 600 miles. The best driving conditions are, as we know, long trips, little stop and go driving or idling and good hot engine temperatures.

After a long period of hesitation and soul-searching, the Porsche factory finally came around and approved the use of high detergent oil in the Porsche. The chemical action of detergent oil is a complex chemical action. In words of one syllable, and as explained to me, it is this. To straight mineral oil is added a metallic soap, usually a barium stearate. This soap tends to enclose particles and solids in the oil and prevent them from either settling as sludge or attaching to the walls and parts of the engine. It is important to remember that the detergent additive does not prevent the contaminants from forming, but it does keep them in suspension. The sludge and "goop" are still there but it has not settled to the bottom of the crankcase. There is still a need for the regular oil change as outlined previously. In addition, because of the compromise situation, the barium stearate or other metallic soaps are not as an effective a lubricant as the regular "straight" mineral oil, but it is felt that its other properties are more valuable. In cer-

tain cases, the super detergent oils, such as the diesel grades, contain more soap on a percentage basis than mineral oil. As you can see the great compromise is still with us. Detergent oil is not the final answer since the ability of HD oil to remove soluble impurities dissolved in the oil is no better than straight mineral oil.

When OCee Ritch mentioned the practices of the airlines, Greyhound bus lines, the Army, Navy, etc., in keeping their oil pure and re-using it, he was referring to a treatment of the oil, which in technical terms is called *Rectification*.

Rectification means the *continuous maintenance* of the lubricating oil in the machine or engine in a clean and pure condition. There are several ways to rectify oil but in essence, the object of any method is to: 1—Remove all solid materials that are foreign to the oil and, 2—Remove the soluble impurities which are dissolved in, and are now an integral part of the oil.

The general methods in use for the rectification of lubricating oil fall into the following categories:

A. *Gravity Settling*
Solids in oil usually have a different weight than the oil itself. If all the oil is allowed to remain standing, particularly when stored hot, a large portion of the solid material will filter out.

B. *Centrifuges*
Gravity settling is accelerated in this second method of gravity separation. The oil is spun around at an extreme rate of speed and the heavier particles are thrown to the outside while the oil stays in the middle. These procedures do a good job on the removal of water and solid particles with a different weight than the oil. Color is not improved due to the weight similarities of soot and carbon particles to that of the oil.

C. *Straining and Surface Filtering*
Most effective for solid particle removal if particle size is larger than the openings in the metal screen, filtering cloth or paper that passes the oil flow. This is the most generally used type of oil filter and our regular Porsche filter falls into this category. These filters can do a good job of stopping particles *larger* than their screen openings and a fair job on small amounts of water but are ineffectual on both small solids and dissolved contaminants.

D. *ABsorption Filtration*—note *AB*
This method of filtration forces all the oil through a mass or depth of matted fibrous material such as cellulose. The removal of the solids is not accomplished by the dependance upon the size of the hole it must go through, but by entrapping the solids in meshes of the filter. Clean oil color is obtained since all the soot and combustion solids are trapped by the ABsorptive qualities of the cellulose. Particle size down to 1 micron are effectively trapped.

E. *ADsorption Filtration*—note *AD*
Refers to the type of filtration that removes soluble impurities in oil by the use of a rare earth block. These rare earths are Fullers Earth, sometimes and more accurately called diatamaceous earth (actually the skeletons of microscopic organisms called diatoms), Activated Alumina and Bauxite (Aluminum ore). These materials have the unique property of being able to selectively draw out of oil, the gums, acids, water, tar and asphaltenes or in short, all of the soluble contaminants. Exactly why these rare earths should have this property is something that science has not been able to explain fully. Suffice it to say, that it does work, and in fact, rare earth beds are basic to the oil refinery for the cracking process in refining crude oil. It is these last two properties, *AB*sorption and *Ad*sorption that the Briggs Oil Filters use to get the rather exciting results described.

The element or cartridge that fits into the filter case is a block covered with a cotton knit sock. Immediately beneath the cotton sock are several layers of dense cellulose. Immediate under the cellulose is a hollow block of molded fullers earth, in the central hole of the fullers earth block is another layer of cellulose and in turn that is covered by the sock. Of course the wrappings are continuous and no exposed portions of the earth block are visible. Simply then, oil to be filtered goes through sock and the cellulose, and solids such as dirt, dust, carbon and metal particles, etc., are removed. The oil then passes through the fullers earth block and all of the soluble contaminents such as acids, gums, tars, water and asphaltenes are removed. Before the oil returns to the system it is again passed through a layer of cellulose and any residual solids are certain to be picked up. Well, so much for theory for a time, what about actual user evaluation?

I met and talked with several users in the Los Angeles area. One of them, the service manager for one of the better regarded dealers has been using the filter for over 50,000 miles. He has yet to change oil. All he has done is to top up the oil level when needed. Inspection of the dip stick brought a view of oil as clean as if it were just poured from a can. A straight mineral oil, non-detergent is the oil he uses regularly. In fact, every Briggs user was in common agreement about non-detergent being the best choice since the filter obviated the necessity of using HD oil.

The fellow mentioned in the OCee Ritch book was undoubtedly the most knowledgeable Porsche enthusiast I have ever met. Three garages filled with goodies, a partially dismanteled Spyder, currently having a GMC Rootes Supercharger with Hilborn Fuel Injec-

tion installed, and enough spare parts to make Porsche distributors jealous, were proof enough. He is regarded as the guy who not only knows, but who has done as well. Every Porsche he has ever owned has had the Briggs installed. This includes Carrera and Spyders but these require a larger capacity filter, G-400 instead of the G-300 we pushrod types can use. He recommends 10 Weight Kendall Black Label Non-detergent oil.

Most people agree that the best weight of oil you can use is the lowest SAE weight you can afford. Since a lighter weight oil will be consumed more rapidly, replenishment is needed more often; but the advantages of better oil flow, easier cold starting with less wear, and better revs because of the lack of oil drag more than make up for the few pennies it takes to top up now and then.

Kendall seems to be preferred because of the fact that it is made up entirely of a select-type of oil called "Bradford Crude". Bradford Crude is a Pennsylvania oil with better viscosity characteristics. In other words, under load and heat, the Kendall 10 Weight will be nearer a 15 or 20 weight than other types of oil. A test of the Briggs unit as well as Kendall oil seem to bear this out.

All persons questioned as to the results of the Briggs unit on their Porsches were enthusiastic. Several points brought out were: less need for plug changes, extremely clean engine innards, absolutely no varnish on engine parts and the ability to remove carbon in the head with a rag. The service manager also reported that cars he has followed up that are using Briggs are on 50 to 60,000 miles without teardowns for usual part failure. Unbuttoned engines that he has seen (for cam changes, etc.) have been absolutely spotless. This seems to bear out what Ritch says, and I have heard the same reports. Incidentally, Johnny Von Newman installs them on his customers cars, and in fact, ran his stable of Ferraris and Spyders on the course with Briggs units. Unconfirmed report says that he has almost eliminated bearing failure.

Installation of a Briggs Unit

For all Porsches up to and including the Super 90, the G-300 is the filter to be used. Since this casing is only slightly larger in the girth, it is almost a stock replacement for the normal filter casing. There are two points that are important to note. Because it is important that the capillary flow rate of the element not be exceeded for best performance, it is necessary to place a simple restrictor on the intake nozzle of the filter. This restrictor is nothing more complicated than a coupling fitting with its central bore brazed closed and a #60 hole drilled. Happily, you can order the filter and the proper #60 restrictor will be installed.

The second point is since the girth of the Briggs is slightly larger than the standard case, the bolt that cinches the strap around the case will have to be about a quarter of an inch longer. You will need an 8 mm bolt, 60 mm long for the best installation. The standard fittings and lines can be connected right into the Briggs case. Be sure that the pressure side of the oil line goes into the intake (marked) on the Briggs. It is also a good idea to smear a little non-hardening Permatex on all threads to stop any annoying drips.

The cost of the filter case, including one element or cartridge, and a #60 restrictor is $14.83. The elements run about $2.95 each and you can either order a case of them or find out who in your locale stocks Briggs G-3 Elements.

I would recommend ordering the filter and the amount of elements you will need from Mr. Roland D. Free, K & F Distributing Co., 5514 Franklin Avenue, Hollywood 28, California. He will ship F.O.B., Los Angeles, and knows all about the Porsche installation. He will also attach the proper restrictor and supply an 8 mm bolt, 60 mm long, if you remember to ask him. There are many Briggs distributors around, but Mr. Free seems to be the only one who will know what you are asking about. For those in the Washington, D. C. area, the Briggs Co. offered to install the proper filter on any car that would care to come in. Seems they would like to get fact sheets out on different makes of cars.

Regarding when do you change the filter, the proper rule of thumb might be, change the element when you normally change the oil. Every now and then peek at the dip stick and note the color; if it is not pristine, don't panic. It might be that the element needs a change. Change the filter and go out for a run, get the car good and hot and go for 100 miles or so. By the time you get back your oil will be sparkling again.

Incidentally, it takes an extra quart to fill the filter. Best way to change elements without mess is let the car stand on level ground overnight; all the oil will have drained from the case and there won't be any to mess the engine room as the old element is withdrawn. The filter case also has a drain cock to drain out sludge and water but the word on this seems to be every four or five thousand miles is sufficient. Above all, don't be afraid to change the filter . . . a clogged filter can't do the job.

As far as the question of using this filter system with older cars and other cars that might have had some respectable mileage with HD oil, the only thing I can say is, be sure that all of the sludge is removed from the engine. Since the filter defeats the additives present in HD oil, the effect might be like switching from HD oil to straight oil. Even though the filter is good, remember that our lube system on the Porsche is a by-pass type and that the oil must be warm before it goes to the filter. I would say O.K. on

rebuilds, new cars and cars that have been run mostly on straight non-detergent oil. Possibly some of the wilder flushing routines will suffice when HD oil has been used for a good deal of the time.

All of this may sound "way out" to some PCAers, but I feel that there is sufficient proof of excellent results to make all of the time spent in digging out the facts worth while. I will gladly try to answer any questions that you might have.

"Havana" Robert Strome
Metropolitan New York Region
621 W. 172 St.
New York 32, N. Y.

FLEET ENGINE WEAR REDUCED BY "GOOD EARTH"

(Reprinted from "Western City," April 1960)

In *1956*, we became impressed by what appeared to be an *excessive cost of maintaining city automotive equipment.* An analysis of vehicle maintenance records over a lengthy period of time indicated that we should be able to eliminate a considerable portion of this cost if a more efficient method of engine lubrication could be found.

The principal problems with which we were being confronted were: *bearing failure due to fatigue; sticking valves and valve lifters; camshaft bearing seizures; cam lobe wear; excessive amounts of sludge; short spark plug life and the need for constant and frequent changing of oil.* These problems were more evident in vehicles which were customarily driven at *slow speeds* and spent a great amount of time idling. As a result of this review, we undertook a *three-year experimental program* using various combinations of brand name oil filters and oil marketed by major oil companies. The filters and oils were rotated in order to obtain all possible combinations. The results of this experimentation indicated that we should be able to significantly reduce engine wear and the costs involved if the standard engine lubrication system could be implemented by a *more efficient method of oil filtration.*

As the first step in our fact-finding program, a typical sample of used oil from one of our vehicles was submitted for laboratory analysis. The sample taken was a Heavy Duty SAE 20 oil after 1,500 miles of normal service with filtration through a standard brand filter element. The laboratory results were as follows:

Vis SUS at 210°	58.6*
Ash Content	0.40%
Precip. # "Water"	3.00
Neut. #	.39
Kissling Resings	.39

* Viscosity of this oil before use was 52 SUS.

The lab report indicated that *either the oil or the filter, or both, were not adequate for the demands of our fleet operation.* During the first stage of experimentation, we used different major brands of oil *(including straight mineral oil)*, reduced the test mileage to 1,000 miles and used various brands of filter elements. Each brand of oil was used with each of four different makes of filter. The net result was a more efficient combination than we had been using initially, but the laboratory reports were still not completely satisfactory.

Proof Stage

After some investigation, *fuller's earth filter elements were purchased,* installed and another series of tests conducted. At the end of the first 1,000 miles, the filter element and oil were changed. *A laboratory analysis of the used oil produced a better report than that of any sample we had previously submitted.* The lab report on the second 1,000-mile sample was better than that of the first. Each succeeding 1,000-mile sample proved to be of higher quality than its predecessor. The fifth such sample had a clean appearance and was well within acceptable limits when tested.

Since we were able to remove the acids, gums, varnish, solids, etc., the proces of holding them in suspension by use of a detergent oil seemed unnecessary. It was reasoned that with a clean engine, a straight mineral oil, with nothing but an oxidation inhibitor and a pour depressor added, should be able to do the job. The very property which makes a highly detergent oil valuable, i.e., its ability to pick up and hold a considerable amount of impurities in suspension until the oil is drained and they are eliminated, can also be somewhat of a hazard. *The continued circulation of these waste products through the moving parts of an engine, rather than filtering them out as soon as they are produced, is undoubtedly responsible for unnecessary wear on engine parts and a significant portion of the overall cost of engine maintenance.*

Believing that we had found an effective filter, we next entered the "proof" stage of the program. Filters with nearly four times the volume of fuller's earth of those used initially were purchased and installed. These larger filters cost only slightly more than the smaller size but obviously have a great deal more efficiency. Using this larger filter and a straight mineral oil, we found our lab reports so uniformly favorable that we discontinued changing oil entirely. *We adopted a practice of changing only the filter element and using the oil over and over again.* It was discovered, however, that the time of changing the filter element must be faithfully observed. *If the vehicle is permitted to run by the point of changing the filter too far, the acid content of the oil builds up rapidly.* This allows the engine to become contaminated, and the oil is not free of acid again until after the second filter element change.

The following process was finally decided upon. *A straight mineral oil,* with an inhibitor and pour depressor added, *is used and never changed.* We use a 4 by 6-inch Fuller's earth filter, which is changed every 2,000 miles. Using this combination, ash content in oil samples has dropped to .03%. One very noticeable advantage of this new system has been with respect to spark plug life. *We have been able to realize more than three times the effective mileage from spark plugs —(30,000 miles)—since instituting the present filtration system.* This is particularly attributable to the fact that there is no metal soap present in straight mineral oil to deposit on the electrodes and in part to the filtration process itself because *two of the principal carbon forming by-products, gum and water, are removed at the filter.*

Cost Factors

Police cars, due to their long periods of idling at the scene of an accident, extended runs at fairly slow cruising speeds, with only occasional spurts of hard driving, had long been *our chief engine maintenance problem.* However, due to the higher efficiency of the filtration process described above, the police car problem *has been reduced to reasonable proportions.* Patrol cars now in service all have in excess of *75,000 engine miles.* They are seemingly operating with the same efficiency they had at *20,000 miles.* Acceleration, top speed, gas mileage and oil consumption have shown *no appreciable change.* Engine maintenance has been limited to two spark plug changes and two sets of breaker points.

A *recent* laboratory analysis of the oil from one of these vehicles (after 75,000 miles of use) is quoted below:

Oil SAE 30, paraffin base, straight mineral	
Vis SUS at 210°	56.7
Ash Content	.03%
Precip. #	Trace
Dilution	2.0%
Neut. #	.067
Water	None
Kissling Resins	None

NOTE: The viscosity is off approximately 2 seconds from new oil. All other readings are within tolerance for new oil.

Comparative costs between the method presently used as opposed to that previously employed demonstrate that the immediate savings in oil changes alone made the experimentation worthwhile. There will, of course, be even greater savings in the long run because of the *"maintenance" value* of the fuller's earth system. The immediate savings during the 75,000-mile test period can easily be seen:

Former Method

Filter and oil changed at 1,000 miles and assuming no oil added between changes:

75 filter elements at $2.00	$150.00
375 qts. oil (crankcase) at .25	93.75
75 qts. oil (filter) at .25	18.75
	$262.50

Present Method

Filter changed at 2,000 miles and assuming no oil added between changes:

38 filter elements at $2.75	$104.50
76 qts. oil (filter) at .25	19.00
	$123.50

Gross saving: Approximately 50% . . . *Net* saving: well over 75% because *the number of oil changes has been cut in half and valuable mechanic time and vehicle inactivity have been reduced in like proportion.*

No company or manufacturers' names of the filter elements or oils tested have been included. However, this information would be made available upon request.

LYLE D. JENKINS
Superintendent of Equipment
San Fernando, Calif.

Mr. JENKINS was flooded with letters from equipment managers from all parts of the country. He had so many to answer that he had a stock letter printed . . . which is condensed and re-printed.

City of San Fernando

City Hall, San Fernando, California

Reply

Thank you for your interest in the experimentation which we have conducted with fuller's earth filters. Because of the many inquiries received, it is necessary that this duplicated letter be sent in response to your request for information. The questions and answers below were made up from several inquiries received and may contain additional facts of interest to you.

Filter

1. Make . . . Manufactured by Briggs Filtration Company, Bethesda 14, Maryland.
2. Size . . . Use Model G-4 (2-quart) on all passenger vehicles and trucks under 2½ ton. Use Model G-8 (8-quart) on vehicles 2½ ton and over.
3. Installation . . . Filter and all necessary fittings are furnished by the company at a cost of approximately $30 to $35 per unit, depending on single orders or for large fleets. Company representatives will advise how to install.
4. Process . . . Method of filtration is "by-pass". A .070 restrictor, installed at a pressure point in the block, controls the circulation with a filtration rate of approximately 8 gallons per hour.

Filter Element

1. Vitrified clay encasement . . . Made by Briggs Filtration Co. Cost per element: Model G-4 . . . $2.78 to $3.55; Model G-8 . . . $5.50 to $7.10.

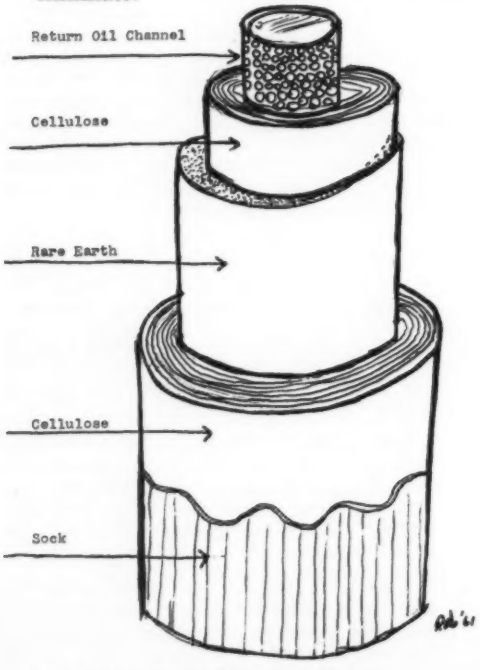
Oil

1. We tested oil from the following major companies:

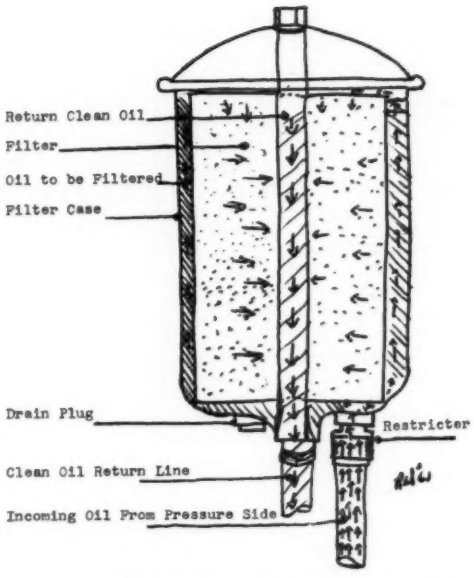
   Shell, Union, Standard, Richfield, Texaco, and Quaker State, Pennzoil, Kendall, Valvoline.

2. We had been using Valvoline in our fleet because of previous tests we had made. The other products were tested in order to observe results. Kendall, during our fuller's earth testing, maintained its viscosity at a slightly higher level than Valvoline. The difference was not considered to be significant, however, and we continue to use Valvoline because it is more easily obtained in the Los Angeles area.

   As a result of our testing, it is our opinion that any straight mineral oil (which all come from the manufacturer with pour depressor and inhibitor added) would give equally satisfactory results. This is based upon the filtration process involved. Fuller's earth actually continues to refine the oil, over and over again, constantly providing a cleaner oil, even removing by-products which the original refining by the manufacturer does not eliminate.



Cross Section Briggs Clarifier Cartridge



CROSS SECTION Case and Filter and Lines

3. Cost of straight mineral oil (SM) is less than that of regular oil.

Filters were changed during the initial stages of experimentation on a strict mileage basis as indicated in the article. However, while perhaps very unscientific, we now change on a "feel and color" basis. This cannot be satisfactorily explained, is not recommended and will depend on vehicle use and maintenance personnel.

We do not have figures indicating parts and maintenance savings which could be definitely supported because we were dealing with different makes of vehicles, different uses, etc. However, we know that maintenance and repair costs have been reduced and parts failures are rare. How much is attributable to fuller's earth is a question we cannot answer.

Very truly yours,
Lyle D. Jenkins
Superintendent of Equipment

FIGHTING "EASTERN CANCER"

Rusted through rocker panels afflict Porsches just like American cars.

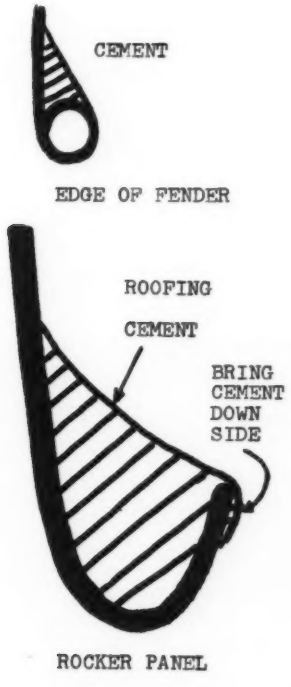
You can maintain your car's good appearance with less than $1 worth of material and a couple of hours time. Proceed like this:

1. Scrape and wire brush out all dirt and junk caught in the lip of the rocker panel. Be sure all loose material is removed. Don't scrape off solid undercoating. If base metal shows, use a rust primer paint, and allow to dry thoroughly.

2. Purchase a gallon of roofing cement. This is black goo of putty-knife consistency, that has asbestos fibers in it. Get it at any builder's supply store; cost should be $1 or

less. Don't use roofing patch compound, it's too runny.

3. Fill the lip of the rocker panel solidly with cement; pack it in thoroughly. Important: mold it as shown in the drawing (cross-hatched area is cement). The slope is necessary so that water will run off, and not collect in the lip. Be liberal with your use of the cement; it's inexpensive. Also, it has a tendency to shrink slightly when it dries.



This procedure should eliminate rusted rocker panels. You might try the same idea on the rolled edges of the fenders at the wheel cut-outs (see sketch).

Paul R. Heinmiller
Hudson-Champlain Region

LUGGAGE RACK FOR A COUPE

As my wife and 7 month old son and I sat contemplating our forthcoming 4400 mile trip from Schenectady to Phoenix via California, we could see we were going to need to carry two 2-suiters outside our Porsche. I couldn't buy a rack big enough so I decided to make one out of Reynolds "do it yourself" aluminum. By placing the rack far enough down over the bumper I hoped to be able to see out the rear window and over the suitcases.

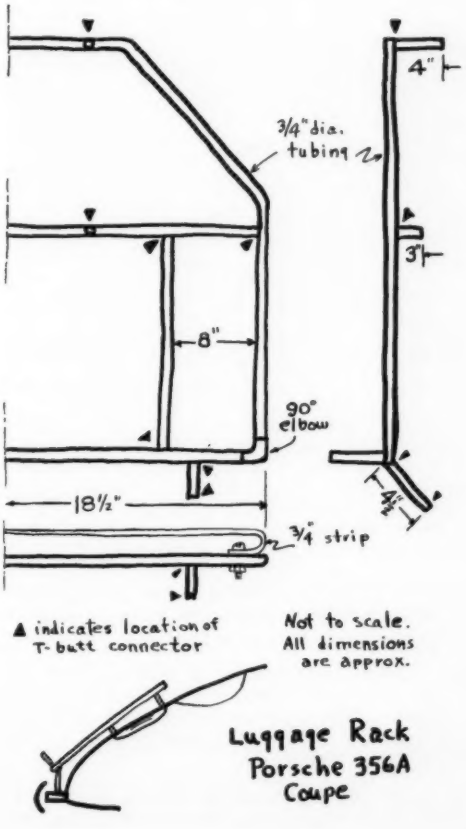
Because the drilled holes for a rack were already on the car I planned to fasten the rack to the car using these holes. The only other requirement was that the rack be fastened so that I could get into the engine compartment without removing the rack or the suitcases.

At a hardware store I bought the following items for $21.35:

1—8 ft x ¾ in. alum. tubing
1—6 ft x ¾ in. alum. tubing
1—6 ft x ¾ in. wide alum. strip
2—90 degree elbows (alum.)
14—T-butt connectors (alum.)
1—Plastic tarpaulin
2—72 in. straps
2—96 in. straps
2—¼ in. x 6 in. stove bolts
2—¼ in. x 4 in. stove bolts
2—¼-20 x 1½ in. nut & bolt set (alum.)

An electrical contractor loaned me a conduit bender. With this I bent the 8 ft. piece of tubing to form the outside of the rack (see drawing). Using a rough plan I cut all the pieces to approximate lengths. With a file and a hacksaw (a coping saw would work, too) I cut and filed until the rack fit tightly together.

To fasten it to the car I used a ¼ in. drill to bore out the hole in the 4 T-butt con-



nectors. When the ends of the aluminum bars in the car's air grille are bent inward the four ¾ in. pieces of aluminum tubing rest snugly on the drilled and tapped lugs designed to hold a rack. The stove bolts are used to fasten the rack to these four lugs.

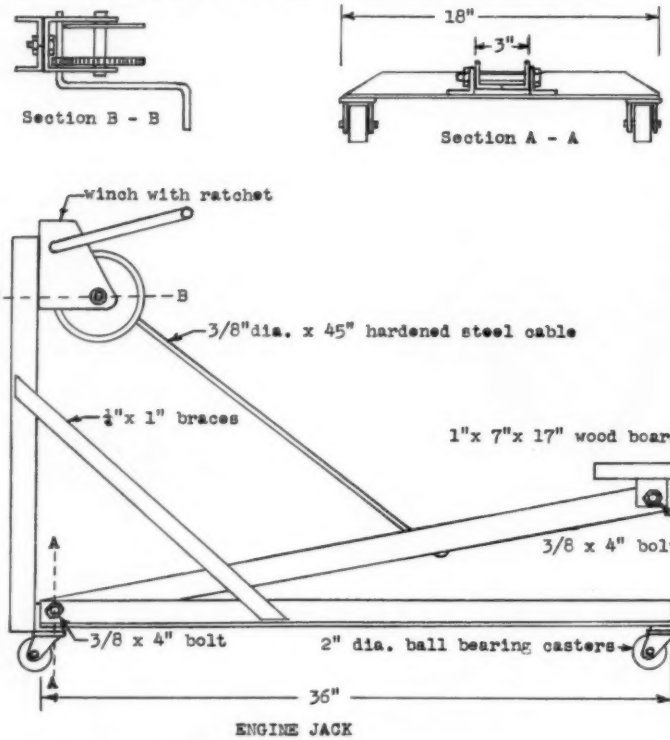
When the rack is in place the two bottom legs rest on the steel bar that holds the bumper guard onto the car. To prevent the fully loaded rack from slipping around on these bars I tied a piece of twine around the legs and the bumper guard.

When the departure day came I loaded on the suitcases, put a couple of extra pounds of air in the rear tires, and headed for California. The rack worked perfectly during the entire trip.

A note to travellers with babies: Casco makes a folding jump chair. It has a sitting and a reclining position. When not in use it can be folded up and put behind the driver's seat, or the baby can sit or sleep in it while riding. If the baby is sitting in this seat it relieves the mother of holding him while cornering. We also used this device in camping areas and restaurants when baby chairs weren't available. The $10 I spent for this chair was one of the best investments I've made in a long time.

Penn R. Post
Formerly a member of Hudson-Champlain, now in the Arizona Region

JACK AND RAMP FOR REMOVING ENGINES



ENGINE JACK

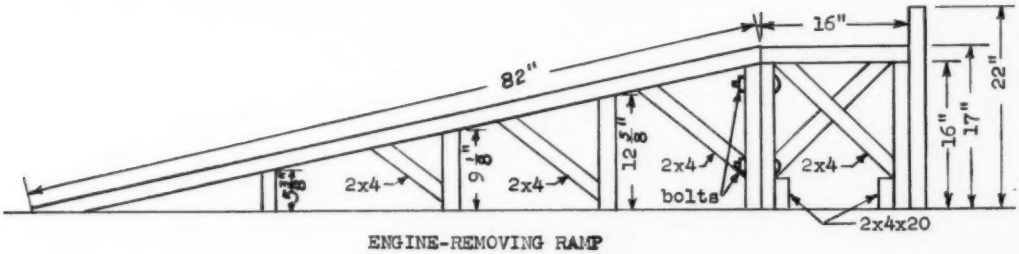
1½" x 1½" angle iron used for all construction except where noted. Welded construction used throughout except where bolted.

Porsche and VW engines can be removed and installed in a minimum amount of time with this ramp and jack.

The ramp raises the rear end of the car about 2 feet, sufficient for the engine to be dropped. The ramp is constructed of 2 x 8 lumber with 2 x 4 diagonal braces. (See drawing for details.)

The jack has a minimum lift of 30 inches, appreciably more than the conventional hydraulic floor jack. Fabricate the jack from 1½ inch angle iron. Use hardened steel cable. Such cable can be identified by the lack of a permanent set after bending. The wood board on which the engine sets is pivoted at the end of the raising arm by a 4 inch bolt through a U-member shaped from 1¼ x ⅛ inch iron. The winch is available from a hardware or boat store for about $6.

Arthur E. Powers
Hudson-Champlain Region



ENGINE-REMOVING RAMP

Constructed of 2"x 8"lumber with 2"x 4" braces

MORE ON PUBLIC RELATIONS

The Portland J.C.'s asked the OREGON REGION to hold a Concours d'Elegance during the Portland Rose Festival. It was held at the Lloyd Shopping Center—the world's largest. There were many entries from out of state including Gerry R. Winter, PCA member from the Washington Region, who won a First in class.

Pete McGill, President Oregon Region wins First in class and the Perpetual Club Trophy. Pictures by Wes Fague.

Gerry R. Winter, PCA Washington, in his blue Coupe took First in class.

drifted from Page 10

A careful study of Section IV, Rule 2 will reveal that you can only rebore up to .030", your present set-up, or use approved optional equipment.

Reboring of Porsche chromed aluminum cylinder barrels just isn't done and the factory lists no optional pistons for each model, so to be SCCA legal you must be:

1300N	6.5:1	
1300S	8.2:1	
1500N	7.1:1	
1500S	8.2:1	with a very small allowable
1600N	7.5:1	carbon build-up
1600S	8.5:1	
1600 S90	9:1	

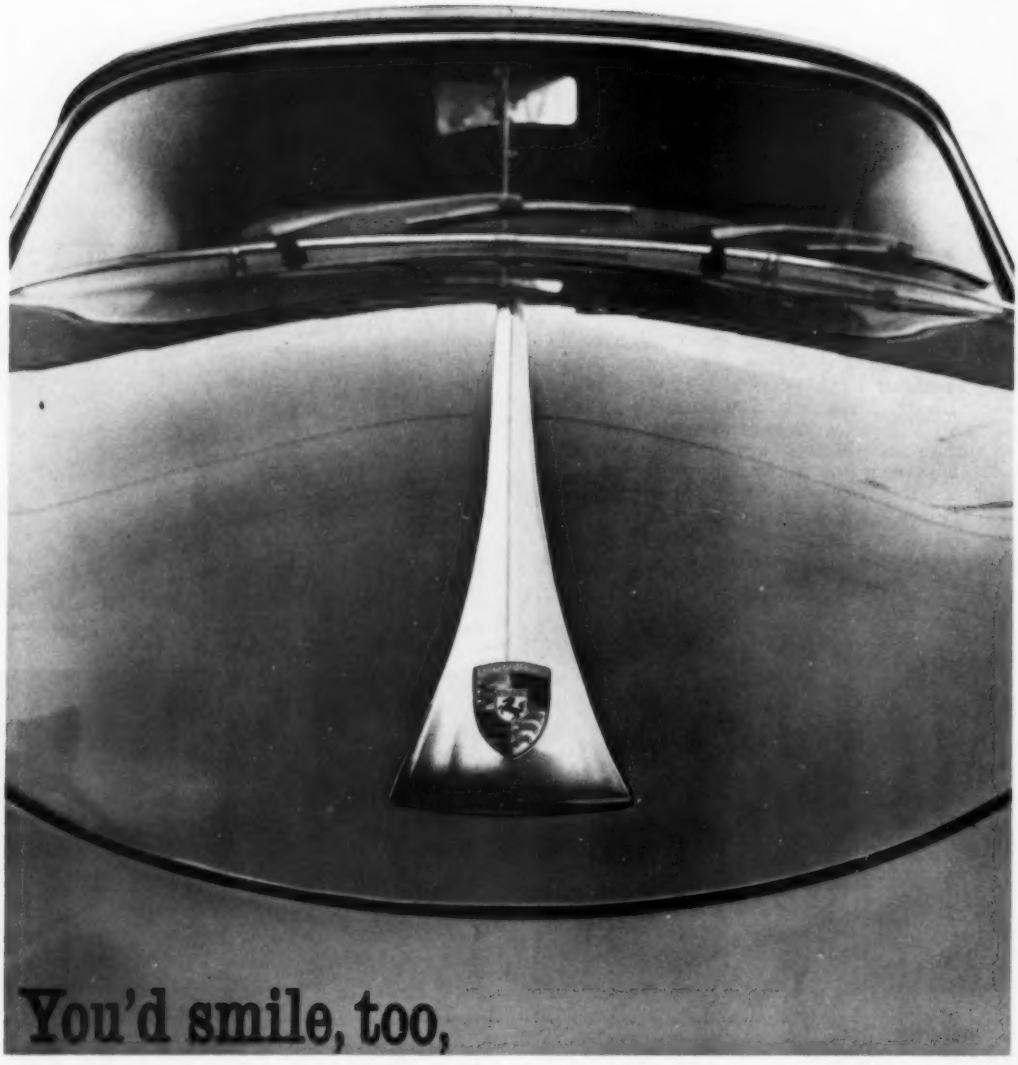
1. The boys with 1600 Normals and Super piston installations will probably tear down, put in the Super cam and go Super. Maybe the factory representatives will see fit to list Super pistons as optional equipment for Normals. This would be a real stroke of genius on their part and would clear up the Class F situation considerably.

2. Those with cut cylinder barrels and altered pistons better start parts hunting.

3. The cuties with the cut crankcase cylinder barrel matting surfaces will just keep on, going, their answer to all the confusion took real ingenuity.

The answer to all of this? Go modified!

Yuri Browneski
Porsche Club of Siberia



You'd smile, too,

if you were Public Sportscar No. 1

(For the time of your life, drive the exciting '62 tomorrow at your Porsche Dealer's.)

Porsche Car Pacific Inc., San Francisco

Volcanoes